

APPENDIX H

**GLOSSARY/ACRONYMS/RIS CODES/
SITE MAPS**

ATTACHMENT H.1

GLOSSARY



GLOSSARY

Depleted Uranium (DU): Uranium that, through the process of enrichment, has been stripped of most of the uranium-235 once contained, so that it has more uranium-238 than natural uranium.

Enrichment: The process of separating the isotopes of uranium from each other. Other elements can also be enriched. In the United States this is done using the gaseous diffusion process.

Enriched Uranium (EU): Uranium that, as a result of the process of enrichment, has more uranium-235 than natural uranium. There are several categories enrichment can be grouped into (e.g., Low Enrichment, Slightly Enriched, Highly Enriched).

Fission Products: The large variety of smaller atoms, including cesium and strontium, left over by the splitting of uranium and plutonium. Most of these atoms are radioactive, and they decay into other isotopes. There are more than 200 isotopes of 35 elements in this category. Most of the fission products in the United States are found in spent nuclear fuel and high-level waste.

Health Physics: The science of radiation protection.

Isotopes: Different forms of the same chemical element that differ only by the number of neutrons in their nucleus. Most elements have more than one naturally occurring isotope. Many more isotopes have been produced in reactors and scientific laboratories.

Low-Enriched Uranium (LEU): Uranium that has been enriched until it consists of about 3 percent uranium 235 and 97 percent uranium 238. Used as a nuclear reactor fuel.

Natural Uranium: Natural uranium (0.72 weight % U-235) was typically received as an ore concentrate. Uranium that has not been through the enrichment or other processing. It is made of 99.3 percent uranium-238 and 0.7 percent uranium-235.

Normal Uranium: Uranium that has been isotopically blended to approximate the natural isotopic range of uranium (around 0.71% uranium-235).



Plutonium: A manmade fissile element. Pure plutonium is a silvery metal that is heavier than lead. Material rich in the plutonium-239 isotope is preferred for manufacturing nuclear weapons, although any plutonium can be used. Plutonium-239 has a half-life of 24,000 years.

Slightly Enriched Uranium: Uranium having a U-235 content (typically 0.95 weight % U-235) slightly above that of natural uranium (0.72 weight % U-235)

Transuranic Elements: All elements beyond uranium on the periodic table. All of the transuranic are manmade.

Uranium: The basic material for nuclear technology. It is a slightly radioactive naturally occurring heavy metal that is more dense than lead. Uranium is 40 times more common than silver.

ATTACHMENT H.2

ACRONYMS



ACRONYMS

ADU:	Diammonium Diuronate
AEC:	Atomic Energy Commission
Am:	Americium
CDC:	Center of Disease Control
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act
DoD:	Department of Defense
DP:	Defense Programs
DOE:	Department of Energy
DOE-HQ:	Department of Energy – Headquarters
DOE-OH:	Department of Energy – Ohio Field Office
DOE-ORO:	Department of Energy – Oak Ridge Operations Office
DU:	Depleted Uranium
EDL:	Economic Discard Limit
ERDA:	Energy Research and Development Administration
E-SRF:	Enriched Supplemental Recovery Facility
EU:	Enriched Uranium
FEMP:	Fernald Environmental Management Project
FERMCO:	Fernald Environmental Management Corporation
FMPC:	Feed Material Production Center
FP:	Fission Product
FY:	Fiscal Year
G:	Grams
GDP:	Gaseous Diffusion Plant
H:	Hydrogen
HEPA:	High Efficiency Purifying Air
ID:	Inventory Difference
Kg:	Kilogram
LEU:	Low-enriched uranium
MC&A:	Materials Control and Accountability
MCW:	Mallinrodt Chemical Works
MgF ₂ :	Magnesium Fluoride
MPC:	Maximum Permissible Concentration



ACRONYMS

(Continued)

MTU:	Metric Ton Uranium
N:	Nitrogen
NFS:	Nuclear Fuel Services
NIOSH:	National Institute of Occupational Safety and Health
NLO:	National Lead Company of Ohio
NMD:	Nuclear Material Disposition
NMMSS:	Nuclear Materials Management and Safeguards System
Np:	Neptunium
NPDES:	National Pollution Discharge Elimination System
NPL:	National Oil and Hazardous Substance Pollution List
NRC:	Nuclear Regulatory Commission
NU:	Natural/Normal Uranium
OU:	Operable Unit
pCi/ml:	Pico Curies per Milliliter
PO:	Production Order
POOS:	Plutonium Out of Specification
ppb:	Parts per billion
PTA:	Plant Test Authorization
Pu:	Plutonium
PUREX:	Plutonium Uranium Extraction
RAC:	Radiological Assessments Corporation
REDOX:	Reduction Oxidation
RI/FS:	Remedial Investigation/Feasibility Study
RMI:	Reactive Metals, Incorporated
ROR:	Reduction-Oxidation-Reduction
RU:	Recycled Uranium
RU-DOE:	Recovered Uranium – Department of Energy
S/G:	Sub-group
SOP:	Standard Operating Procedure
SRF:	Supplemental Recovery Facility
SRP:	Savannah River Plant



ACRONYMS

(Continued)

SRS:	Savannah River Site
SWIFTS:	Sitewide Waste Information Tracking and Reporting System
Tc:	Technetium
Th:	Thorium
TRU:	Transuranic
U:	Uranium
UAP:	Uranyl Ammonium Phosphate
UCl ₄ :	Uranium Tetrachloride
UF ₄ :	Uranium tetrafluoride
UF ₆ :	Uranium hexafluoride
UNH:	Uranyl Nitrate Hexahydrate
UO ₂ :	Uranium Dioxide
UO ₂ F ₂ :	Uranium Dioxide Difluoride
UO ₃ :	Uranium trioxide
U ₃ O ₈ :	Tri-Uranium octa-oxide
USPHS:	United States Public Health Service
WEMCO:	Westinghouse Environmental Management Company of Ohio
WMCO:	Westinghouse Management Company of Ohio
WSSRAP:	Weldon Spring Site Remedial Action Project
WVDP:	West Valley Demonstration Project
WVDPA:	West Valley Demonstration Project Act

ATTACHMENT H.3

RIS CODES



RIS CODE LIST

RIS CODE	COMPANY
ACD	INHALATION TOXICOLOGY RESEARCH INSTITUTE
AGE	
AIC	ATOMICS INTERNATIONAL, CANOGA PARK CA
ALA	SANDIA NATIONAL LABS, ALBUQUERQUE
ALD	SANDIA NATIONAL LABS, LIVERMORE
AMC	
ANL	ARGONNE NATIONAL LAB
ARF	ROCKWELL INTERNATIONAL, ROCKY FLATS
ARK	
ARM	IIT RESEARCH INST, CHICAGO IL
ASA	DOW CHEMICAL USA, ROCKY FLATS DIV.
ATA	MASON & HANGER-SILAS MASON BURLINGTON
AUA	LOS ALAMOS NATIONAL LABORATORY
AVA	MONSANTO RESEARCH CORP, MOUND
AVB	EG&G MOUND APPLIED TECHNOLOGIES, INC
AXA	GENERAL ELECTRIC CO, PINELLAS
AYA	SILAS MASON CO, INC, MEDINA
AZA	MASON & HANGER, FORT CAMPBELL KY
BBA	BRIDGEPORT BRASS CO.
BMI	BATTELLE MEMORIAL INST.
BWD	BECHTEL JACOBS COMPANY LLC
BXA	LMUS, USEC, PORTSMOUTH GDP
BYA	UNION CARBIDE, PGDP, USEA, PADUCAH, KY
BYC	USEC, PADUCAH GDP
BZA	BROOKHAVEN RESEARCH LABORATORY
CAA	DOE CHIGAGO OPERATIONS OFFICE
CAB	
CAE	ATOMICS INT, DIV OF NA AVIATION, INC
CAF	BATTELLE, COLUMBUS DIVISION
CAK	AMES LABORATORY, IOWA STATE UNIV



RIS CODE LIST

RIS CODE	COMPANY
CAZ	ALLIS CHALMERS MANUFACTURING COMPANY
CBB	
CBH	NEW BRUNSWICK LABORATORY, NEW JERSEY
CBJ	USDOE, NEW BRUNSWICK LAB, ILLINOIS
CCC	UNION CARBIDE NUCLEAR CO. (K-25 PLANT)
CCP	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CCS	BWX TECHNOLOGIES, INC.
CKY	UNION CARBIDE NUCLEAR CO.
CPA	U OF FLORIDA
CPI	
CWA	FERMI NATIONAL ACCELERATOR LAB., ILL
CYT	UNION CARBIDE NUCLEAR CO. (Y-12 PLANT)
CZA	ARGONNE NATIONAL LABORATORY, ILLINOIS
CZC	ARGONNE NATIONAL LABORATORY, IDAHO
CZD	BROOKHAVEN SCIENCE ASSOCIATES, BNL
DAA	DOE SAVANNAH RIVER OPERATIONS OFFICE
DCC	NUCLEAR FUEL SERVICES, ERWIN TN
DIA	
DYA	SYLCOR DIVISION, HICKSVILLE NY
DZA	WESTINGHOUSE SAVANNAH RIVER COMPANY
FAA	DOE OAK RIDGE OPERATIONS OFFICE
FAL	UNIVERSITY OF VIRGINIA
FAP	BABCOCK & WILCOX NUC MATLS, EXCPT PU
FAQ	N.L.INDUSTRIES,INC.NUC DIV,ALBANY,NY
FAV	KERR-MCGEE CORP, NUCLEAR PRODUCTS
FAX	NUCLEAR FUEL SERVICES, ERWIN TN
FBA	GENERAL ELECTRIC CO, EVENDALE PLANT
FBB	GENERAL ELECTRIC CO, IDAHO FALLS
FBE	NEW BRUNSWICK LABORATORY, USAEC
FBM	KERR-MCGEE NUCLEAR CORP, CIMARRON



RIS CODE LIST

RIS CODE	COMPANY
FBZ	GULF NUCLEAR FUELS, COMMERCIAL PRODUCT
FCZ	TENNESSEE NUCLEAR SPECIALTIES, INC
FTA	RMI TITANIUM COMPANY
FVAA	NLO, INC DISCARD TO ATMOSPHERE
FVAG	NLO, INC DISCARD TO RIVER
FVCH	FEMP DISCARD TO HOLDING AREA
FWA	MALLINCKRODT CHEMICAL, WELDON SPRING
FXA	BECHTEL JACOBS, USDOE, PORTSMOUTH
FYA	UNION CARBIDE, PGDP, PADUCAH, KY
FYC	BECHTEL JACOBS CO. ,LLC,US
FZA	UNION CARBIDE, ORGDP, OAK RIDGE, TN
FZB	UNION CARBIDE CORP, Y-12 PLANT
FZC	UNION CARBIDE, ORNL, OAK RIDGE, TN
FZE	BECHTEL JACOBS COMPANY LLC
FZEI	LM, K-25, TSCA TREATMNT, STORG, DISPOS
FZF	LOCKHEED MARTIN ENERGY SYSTEMS, Y-12
FZG	LOCKHEED MARTIN ENERGY SYSTEMS, ORNL
GAA	DOE OHIO FIELD OFFICE
GAT	GOODYEAR ATOMIC CORP., PORTSMOUTH
GDA	GENERAL DYNAMICS, SAN DIEGO, CA
GVCH	FEMP DISCARD TO HOLDING AREA
GWR	
HAA	DOE RICHLAND OPERATIONS OFFICE
HAM	
HGE	GENERAL ELECTRIC CO, RICHLAND WA
HRA	ROCKWELL HANFORD OPERATIONS, HANFORD
HUA	HANFORD ENGINEERING DEVELOPMENT LAB
HUD	WESTINGHOUSE HANFORD COMPANY
HUE	WESTINGHOUSE HANFORD, DEFENSE REACTOR DIV
HVA	ATLANTIC RICHLAND HANFORD COMPANY



RIS CODE LIST

RIS CODE	COMPANY
HWA	ISOCHEM, INCORPORATED, RICHLAND
HXA	UNC NUCLEAR INDUSTRIES, RICHLAND
HYA	BATTELLE MEMORIAL INST,PACIFIC NW LB
HZA	GENERAL ELECTRIC CO, RICHLAND
IGC	
ISC	IOWA STATE COLLEGE
JRK	LOCKHEED MARTIN ITC, SPEC MANUFAC
JSA	ALLIED CHEMICAL, ICPP, IDAHO FALLS\
JSB	AEROJET NUCLEAR CO, IDAHO, TRA, TAN, PBF
JSK	E G & G, INC. ARA,LOFT,PBF,TAN
JWA	IDAHO NUCLEAR CORP, ICPP, IDAHO FALLS
JWB	IDAHO NUCLEAR CORP, TEST REACTOR
JXI	LOCKHEED MARTIN ITC, ICPP
LAB	U OF CAL, LAWRENCE LAB, LIVERMORE CA
LAE	ROCKETDYNE, ROCKWELL INTL, SANTA SUSANA
LAL	ROCKETDYNE, ROCKWELL INTL, CANOGA
LAW	GENERAL ATOMICS SAN DIEGO
LAZ	GE, VALLECITOS NUCLEAR CENTER
LIC	GA TECHNOLOGIES, INC SAN DIEGO
LMT	
LST	
LZA	U CALIFORNIA,LAWRENCE BERKELEY LAB
LZB	U CAL, LAWRENCE LIVERMORE LABORATORY
MAA	NEW YORK OPERATIONS OFFICE USAEC
MAB	USAEC, CANEL PROJECT OFFICE
MAP	AEORPROJECTS INC., WEST CHESTER PA
MBA	
MBB	REACTIVE METALS INC ASTABULA, OH
MBL	MARTIN MARIETTA CORP, BALTIMORE
MBN	WHITTAKER CORP, NUC METALS DIVISION



RIS CODE LIST

RIS CODE	COMPANY
MBR	BABCOCK&WILCOX,R/D, NUC DEV CENTER
MBS	
MBU	UNITED NUCLEAR CORP, RES & ENGR CNTR
MBY	
MCC	
MCW	MALLINCKRODT CHEMICAL WORKS, WELDON SPRING MO
MCY	WESTINGHOUSE, FUEL MFG & DEV, CHESWICK
MIO	NUCLEAR METALS INC, WEST CONCORD MA
MMC	
MNL	
MNP	NUCLEAR MATERIALS & EQUIP, PU SITE
MPW	PRATT & WHITNEY AIRCRAFT DIV, MIDDLETOWN CT
MSA	USAEC NY OPERATIONS, NEW YORK NY
MZA	BROOKHAVEN RESEARCH LABORATORY
NBL	NEW BRUNSWICK LABATORY, NEW BRUNSWICK NJ
NCF	NATIONAL CARBON CO, FOSTORIA OH
NLA	NATIONAL LEAD, ALBANY NY
NME	NUCLEAR MATERIAL AND EQUIPMENT CORP., APOLLO PA
OCB	
OGE	GENERAL ELECTRIC CO, CINCINNATI OH
ORL	
PAB	DUQUESNE LIGHT COMPANY, SHIPPINGPORT PA
PAP	BABCOCK&WILCOX,APOLLO, NUC MATL&MFG
PZA	BETTIS ATOMIC POWER LABORATORY
QAA	USDOE,OFFICE OF SAFEGUARDS & SECURTY
QAB	INTERNATIONAL PROGRAMS CONTROL
QAC	DOE HEADQUARTERS
QBA	REGULATORY OPERATIONS, HDQTRS, WASH
QFA	NAC INTERNATIONAL NMMSS PROGRAM
QZG	91C MATERIAL - UNITED KINGDOM



RIS CODE LIST

RIS CODE	COMPANY
RAD	WESTINGHOUSE, BETTIS ATOMIC POWER LAB
RBRU	IPR-R1
RCA	CANADA
RDDX	PORT HOPE (DEPLETED URANIUM)
RLA	GENERAL ELECTRIC CO, RICHLAND WA (PRE-RIS)
RMA	MALAYSIA
RNE	NETHERLANDS
RUAP	SPRINGFIELDS (UF6)
RUBP	GENERAL ACCOUNT
RUEG	SPRINGFIELDS (UO3)
SAA	USDOE, STORAGE CONTROL, FOREIGN OWNED
SAF	MASON & HANGER, FORT CAMPBELL KY
SBN	MASON & HANGER, SAN ANTONIO TX
SBX	MONSANTO, MIAMISBURG, OH
SDA	DUPONT
SFC	
SFE	
SFF	
SFJ	DOW CHEMICAL CO, GOLDEN CO
SFT	
SGE	
SOM	
SRS	SYLCOR DIVISION, HICKSVILLE, NY
SYL	
UNC	
VAB	USDOE, NEVADA TEST SITE, BURIAL GROUND
VAC	NATIONAL RESEARCH, CAMBRIDGE MA
VPI	
VVB	NLO, INC FERNALD BURIAL GROUND
VVC	FEMP, WASTE MANAGEMENT ACCOUNT



RIS CODE LIST

RIS CODE	COMPANY
WCP	COMBUSTION ENGINEERING INC., WINDSOR CT
WEB	WESTINGHOUSE BETTIS, PITTSBURGH PA
WFP	
XGA	AEROJET ORDNANCE COMPANY
XHB	OLIN CORP., WINCHESTER DIV
XHK	ALLIED-GENERAL NUCLEAR SERVICES
XIA	STARMET, CMI
XKO	ECOTEK LABORATORY SERVICES, INC.
XPO	TWIN CITY TESTING
YAF	U. S. ARMY, TEST & EVALUATION CMD
YAM	U. S. DOT, COAST GUARD ACADEMY, NEW LONDON CT
YBC	NATIONAL INSTITUTE OF STANDARDS/TECH
YBS	U. S. ARMY, ARSENAL RESEARCH LAB
YBT	U. S. ARMY, PICATINNY ARSENAL
YDE	NUCLEAR FUEL SERVICES, WEST VALLEY, NY
YEC	CIMARRON CORPORATION
YEF	SMITHSONIAN INSTITUTE
YGU	THE CITIDAL CHARLESTON, SC
YHP	MURRAY STATE UNIVERSITY, PHYSICS
YJL	COLGATE UNIVERSITY, PHYSICS
YLE	WESTINGHOUSE, NES, WALTZ MILL SITE
YLM	WESTINGHOUSE, COMMERCIAL FUEL DIV.
YPF	AUBURN UNIVERSITY, SAFETY & EH
YPJ	GE, AIRCRAFT ENGINES
YQM	U. S. ARMY CORPUS CHRISTI DEPOT
YRA	ALLIANT TECHSYSTEMS, INC.
YRK	COTTER CORPORATION, COTTER MILL
YST	AEROJET ORDINANCE TENNESSEE
YSZ	LUCIUS PITKIN, INC. METROPOLIS IL.
YUD	SIEMENS POWER CORPORATION



RIS CODE LIST

RIS CODE	COMPANY
YVX	NUCLEAR METALS, INC.
YZX	U. S. NAVY, NAVAL WEAPONS LABORATORY
ZCM	BUCKNELL UNIVERSITY, PHYSICS
ZCY	CARNEGIE-MELLON U, NUCLEAR RESEARCH
ZDB	CASE WESTERN RESERVE U, NRC
ZDC	THE CATHOLIC UNIVERSITY OF AMERICA
ZDP	U OF CINCINNATI MEDICAL CENTER, RSO
ZDT	CLARKSON UNIVERSITY
ZEF	COMBUSTION ENGINEERING INC., LEU
ZFZ	FAIRLEIGH DICKINSON U, TEANECK-HACK
ZIB	SCIENTIFIC ECOLOGY GROUP, INC.
ZIF	CHEM-NUCLEAR SYSTEMS, INC., DCF
ZIJ	ALARON CORPORATION
ZKB	IOWA STATE U, NUCLEAR ENGINEERING
ZKL	KANSAS STATE U, AG & APPLIED SCIENCE
ZKP	UNIVERSITY KENTUCKY, NEL
ZLD	LEDOUX & COMPANY
ZLR	LOUISIANA TECH U, NUCLEAR CENTER
ZLU	U OF LOUISVILLE, SPEED SCIENTIFIC
ZMH	MANHATTAN COLLEGE, MECHANICAL ENG.
ZMR	UNIVERSITY OF MARYLAND, ENV. SAFETY
ZND	UNIVERSITY OF MINNESOTA, EH&S
ZNG	UNIVERSITY OF MISSISSIPPI, ESO
ZNX	N.L.INDUSTRIES,NUCLEAR DIV,ALBANY,NY
ZOK	IT CORPORATION
ZOV	MANUFACTURING SCIENCE CORPORATION
ZQG	NORTHWESTERN U, RESEARCH SAFETY
ZQM	NUCLEAR FUEL SERVICES, INC.
ZQN	B&W NES, INC., NUCLEAR SERVICES
ZQQ	NUCLEAR METALS INC (SEE YVX)

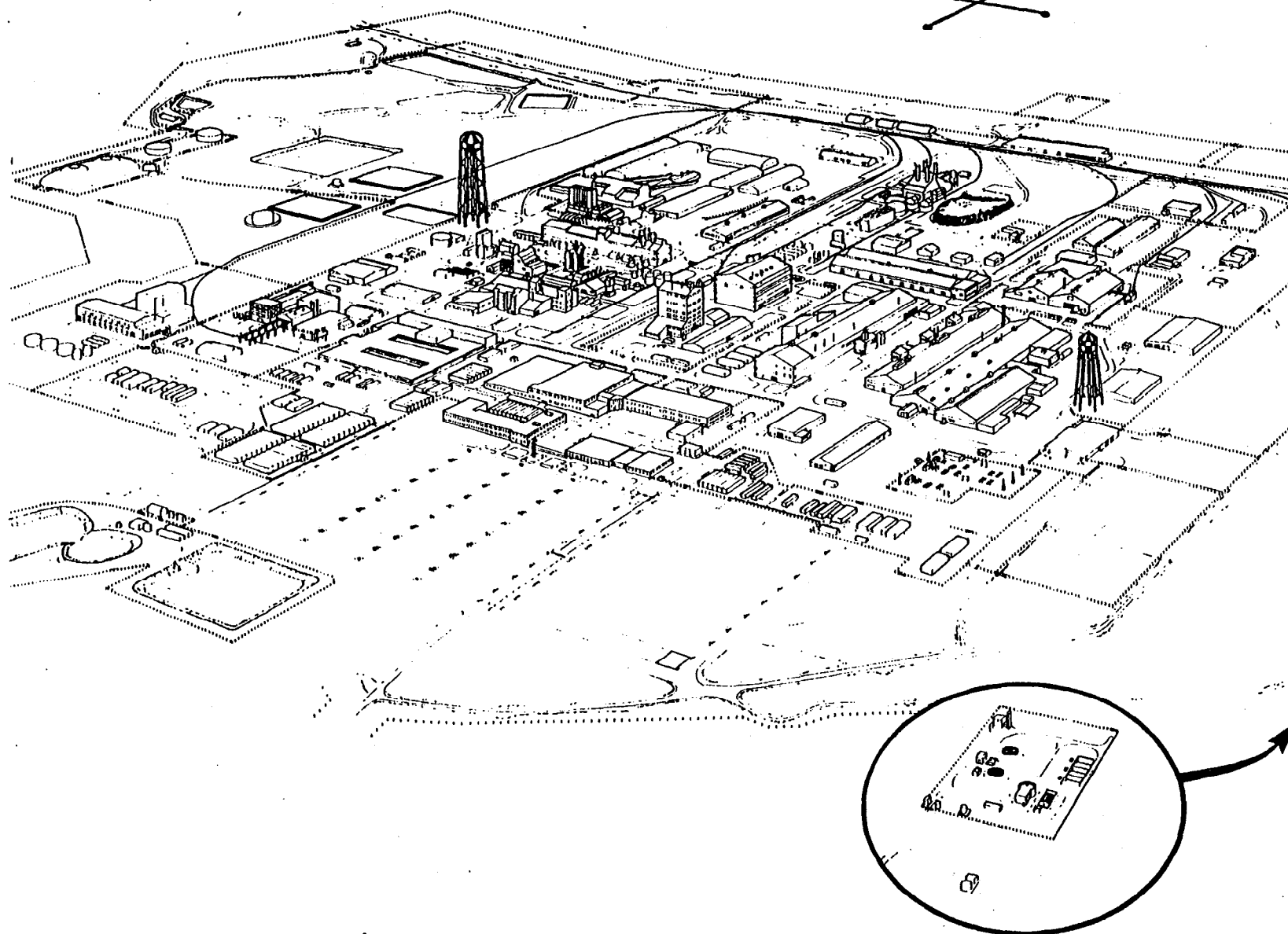


RIS CODE LIST

RIS CODE	COMPANY
ZQX	OHIO UNIVERSITY, ARTS & SCIENCES
ZSF	UNIVERSITY OF PITTSBURGH, RSO
ZSK	PRINCETON UNIVERSITY, OS&H
ZSP	PURDUE U, SUBCRITICAL PILE FBBF
ZST	CHAMBERLAIN MANUFACTURING CORP.
ZTE	UNIVERSITY OF RHODE ISLAND, KINGSTON
ZVF	SYRACUSE UNIVERSITY
ZVX	TEXAS TECH UNIVERSITY, EH&S
ZWQ	ABB COMBUSTION ENGINEERING, INC.
ZWS	GENERAL ATOMIC CO, ELMSFORD, NY
ZWY	UTAH STATE UNIVERSITY, EH&S
ZXA	VANDERBILT U, MECHANICAL ENGINEERING
ZXF	VILLANOVA UNIVERSITY, PHYSICS
ZXH	VIRGINIA POLYTECHNIC INSTITUTE
ZYG	WV INSTITUTE OF TECHNOLOGY
ZYP	WESTINGHOUSE, COMMERCIAL MFG, CHESWICK
ZYQ	WESTINGHOUSE, SCIENCE & TECHNOLOGY
ZZA	UNIVERSITY OF WISCONSIN, REACTOR LAB
ZZX	U. S. ARMY, APG, COMBAT SYSTEMS TEST

ATTACHMENT H.4

SITE MAPS



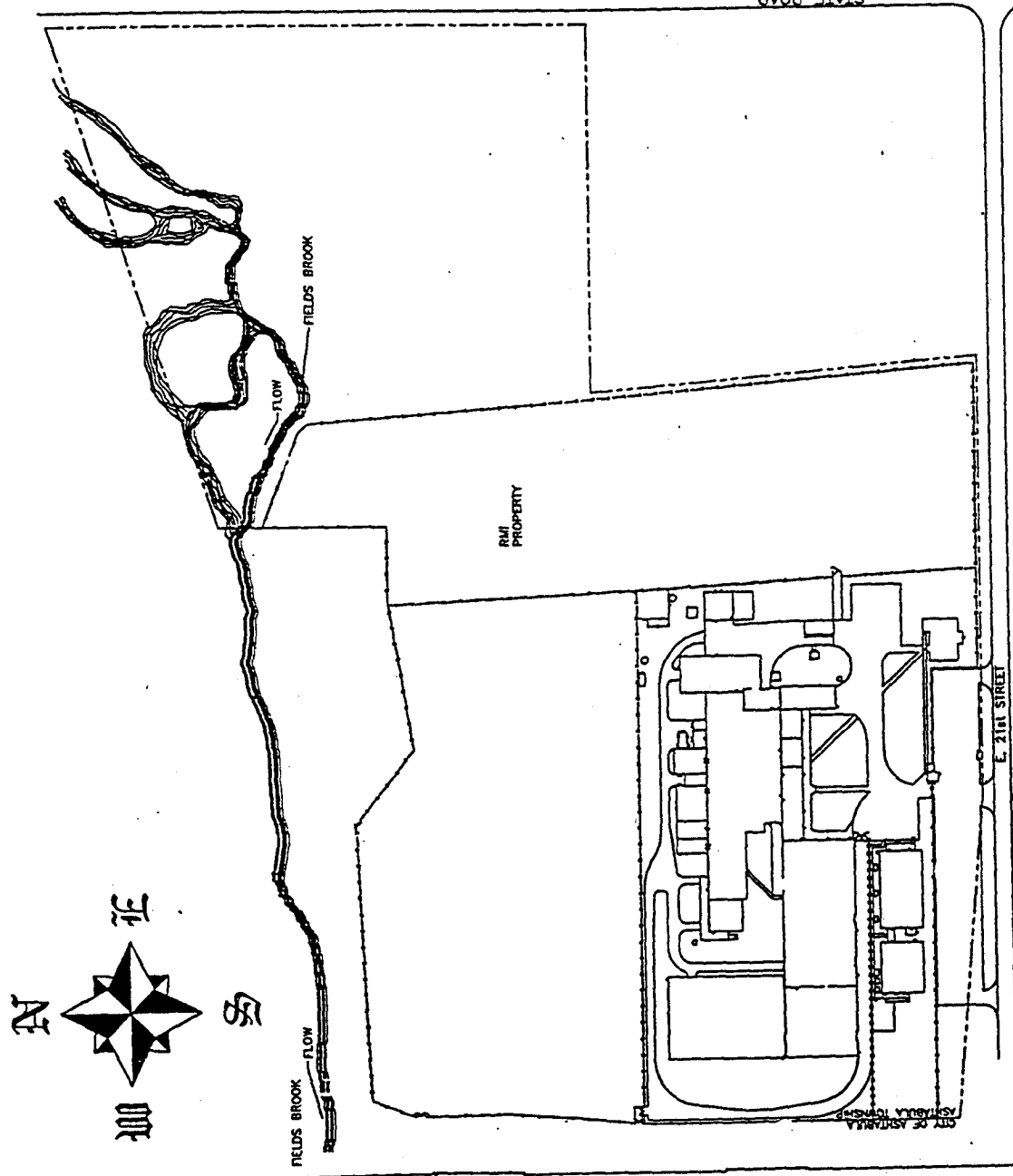
FEMP Site Perspective

The sewage treatment plant shown in the circle is located on the east side of the FEMP.



DWG. No.
A2118R3

LEGEND
 --- 8' SECURITY FENCE
 --- RMI PROPERTY LINE



RMI COMPANY
EXTRUSION PLANT
ASHTABULA, OHIO

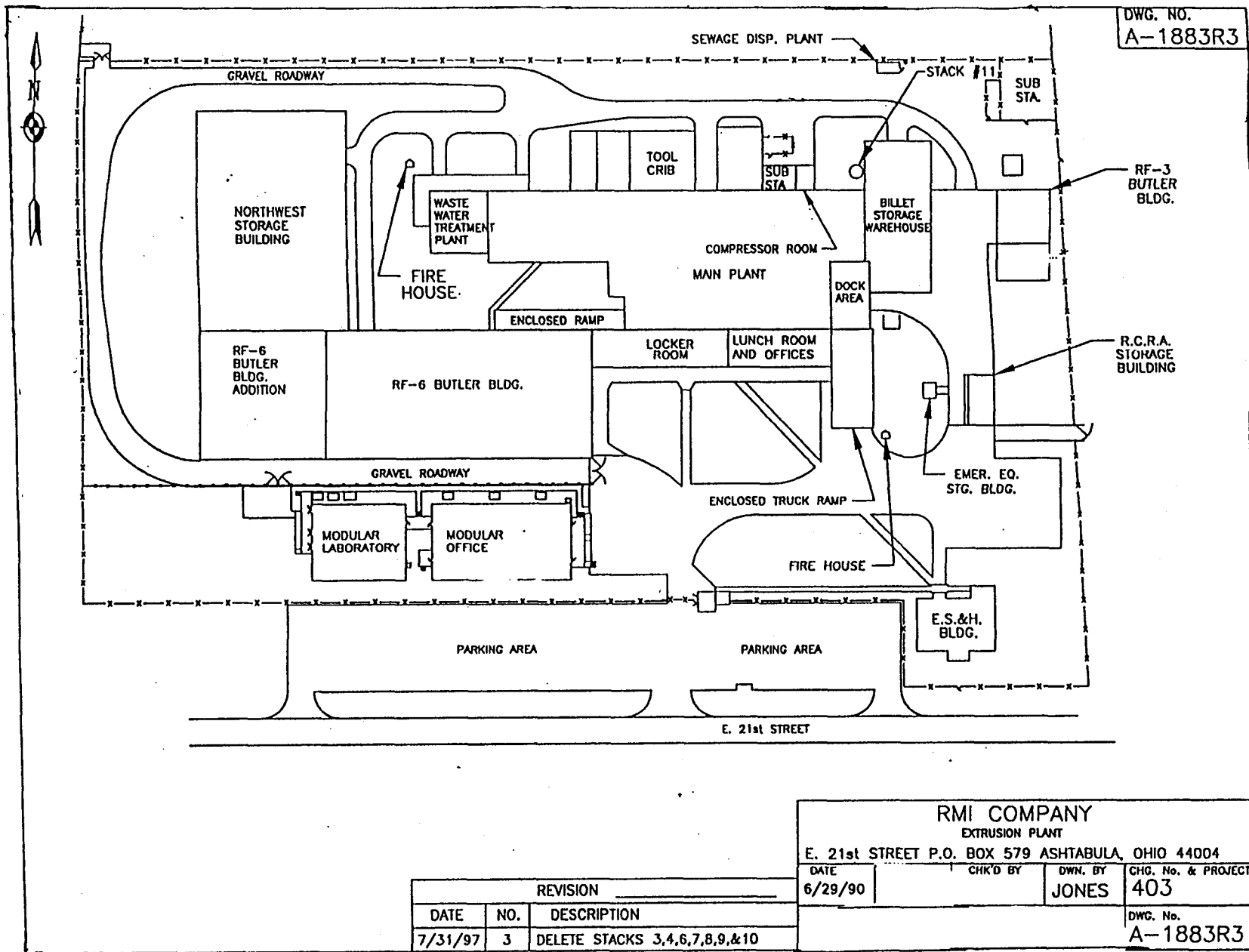
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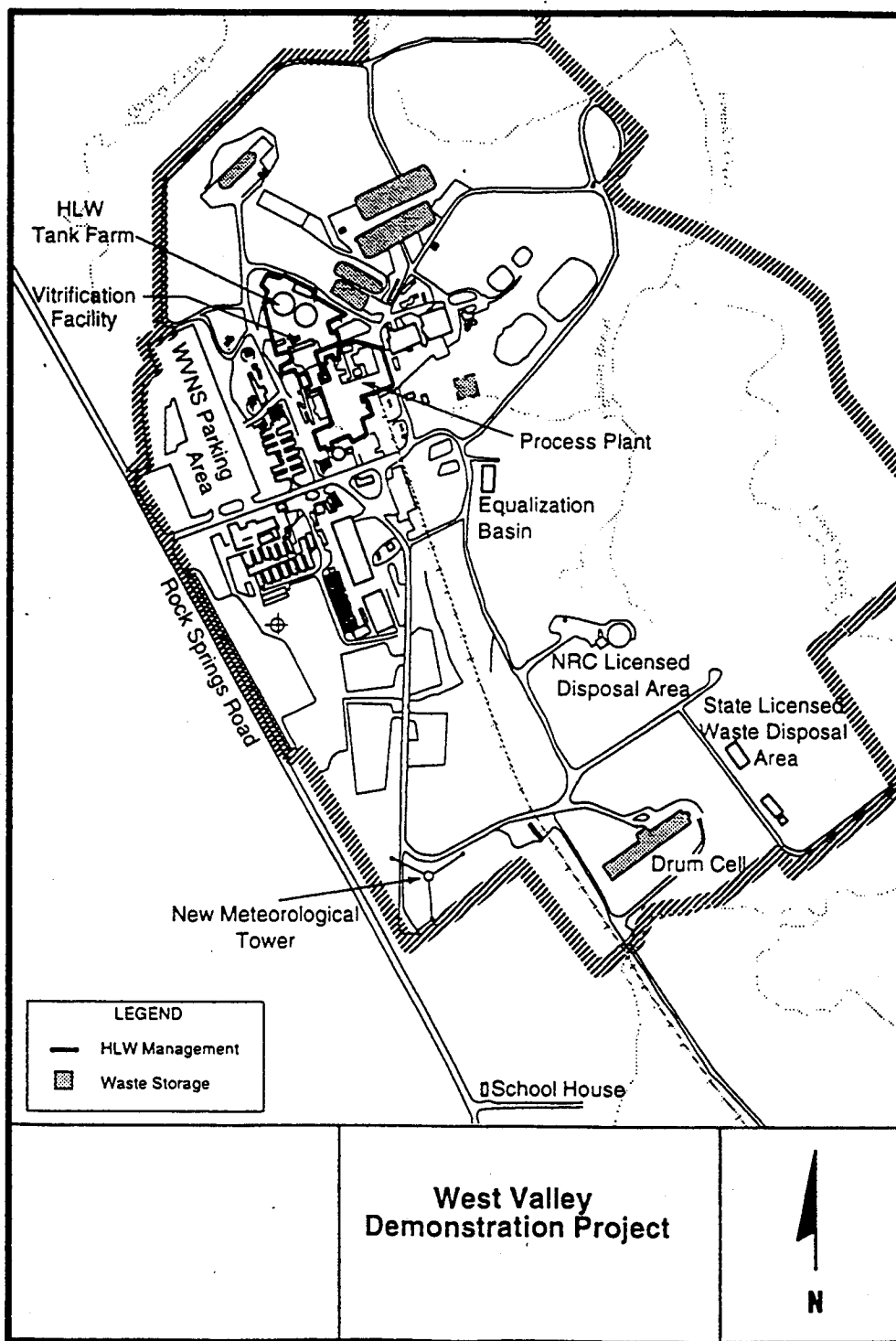
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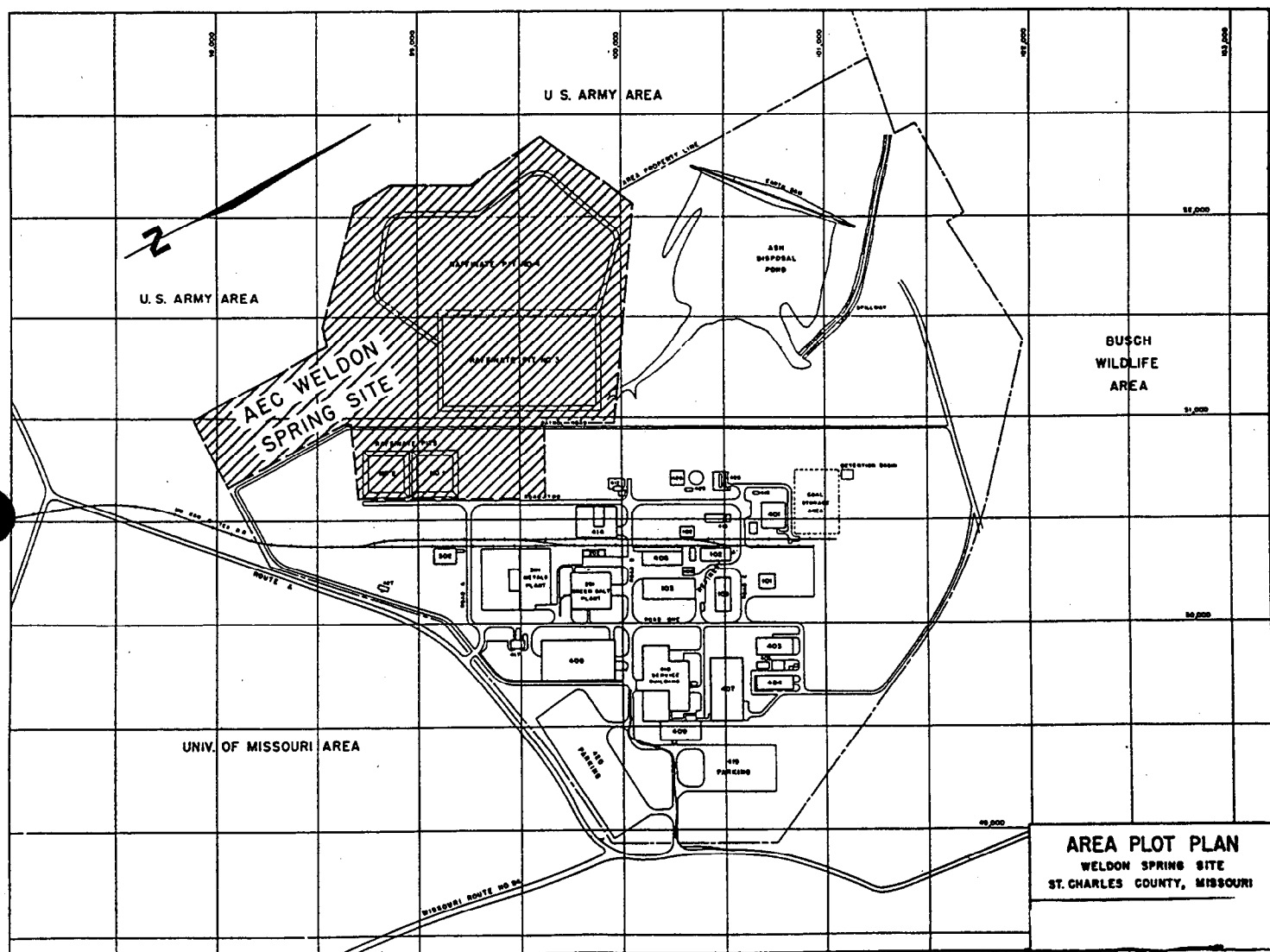
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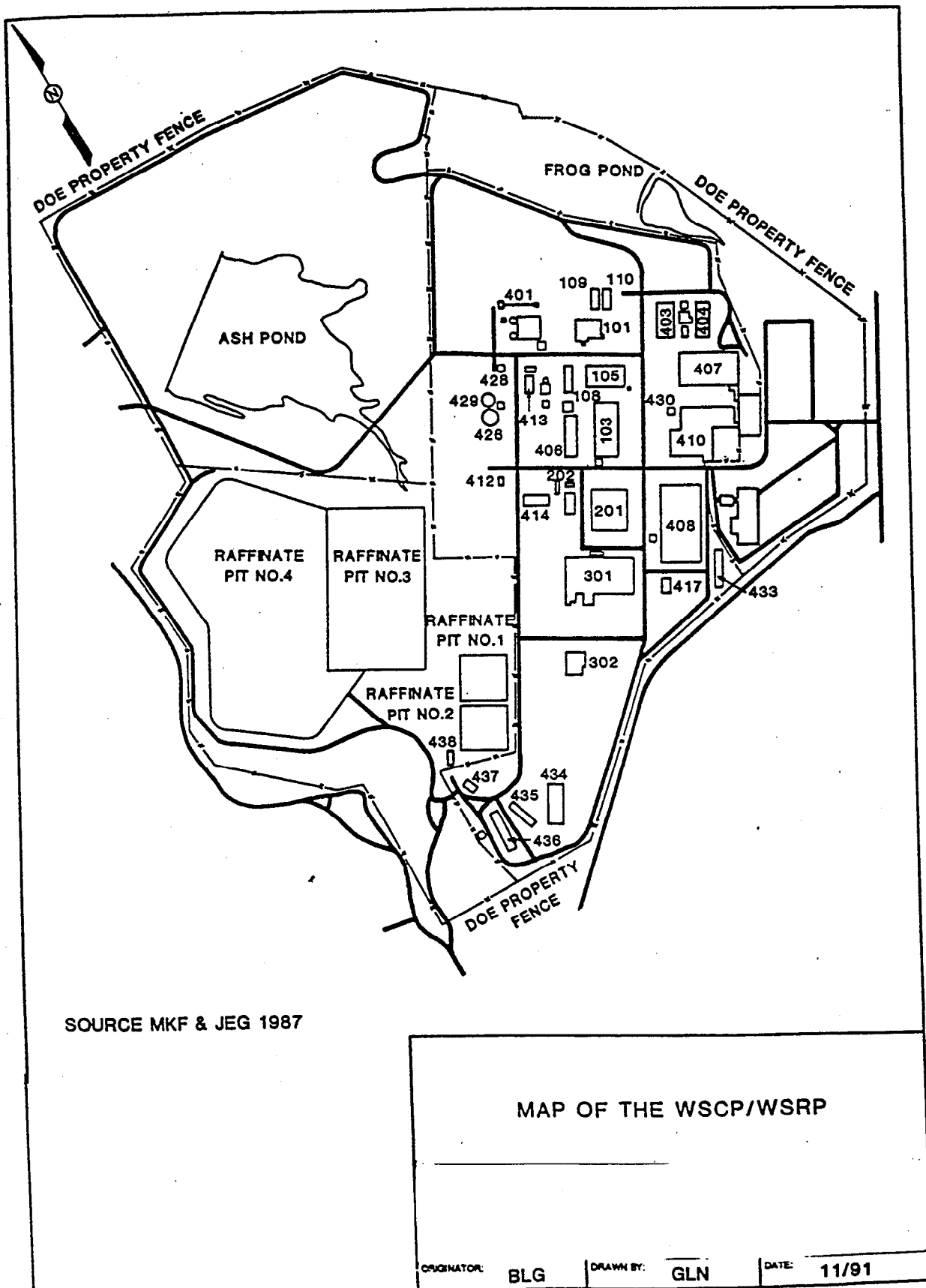
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			DESCRIPTION	REVISION









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